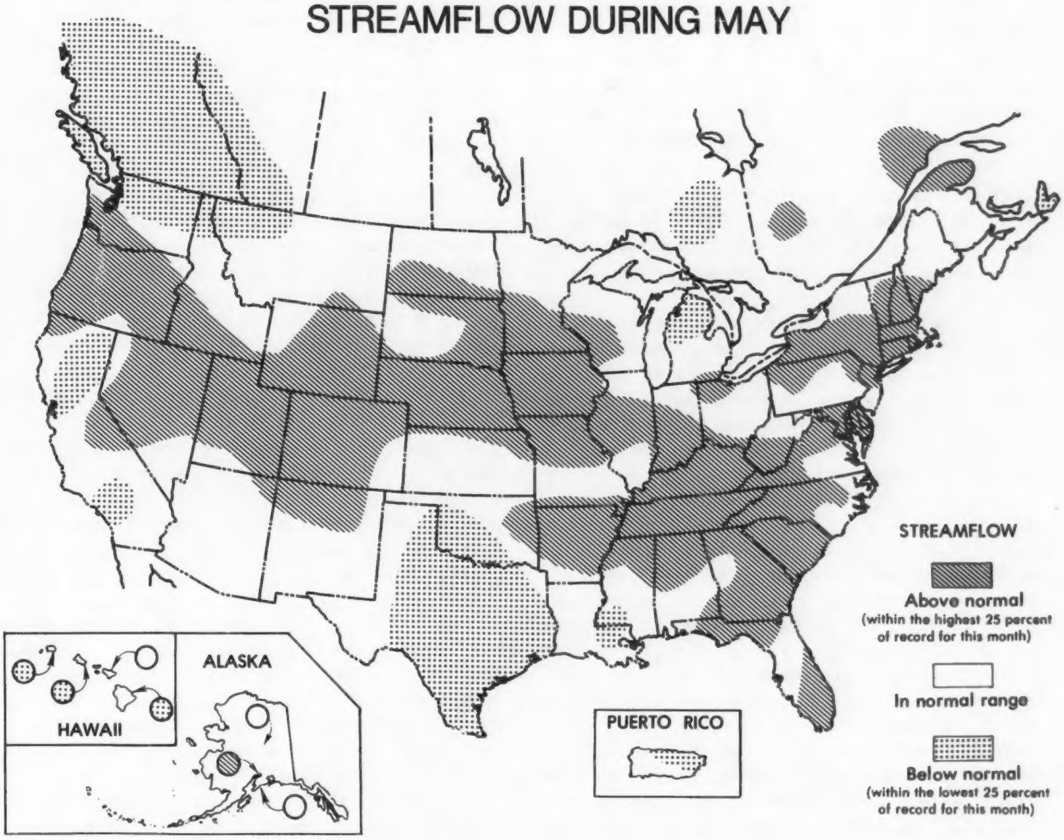
# National Water Conditions

UNITED STATES
Department of the Interior
Geological Survey

CANADA
Department of the Environment
Water Resources Branch

MAY 1984

## STREAMFLOW DURING MAY




Streamflow was in the normal range or above that range in most of the United States and southern Canada during May. Flooding occurred in Colorado, Idaho, Kentucky, Nevada, North Carolina, Oklahoma, Oregon, Tennessee, Utah, Virginia, West Virginia, Wyoming, and in parts of most northeastern States at month's end. Monthly mean flows were highest of record for May in parts of at least 10 States.

Flows remained in the below-normal range in parts of Hawaii, Michigan, Montana, Puerto Rico, Texas, and Washington. Drought conditions affected parts of Puerto Rico and Texas.

Contents of principal reservoirs were near or above average in most of the Nation but were well below average in parts of Puerto Rico, Texas, Washington, and Oklahoma.

## STREAMFLOW CONDITIONS DURING MAY 1984

Streamflow generally decreased seasonally in most areas of the United States and southern Canda that are east of the Rocky Mountains. Exceptions included most of Arkansas, Illinois, Iowa, Tennessee, and Wisconsin, where increasing flows were noted. Flows generally increased seasonally in the Rocky Mountain States where snowmelt runoff from a record-high snowpack caused severe flooding in addition to accompanying mudflows and mudslides. The warm temperatures that triggered the rapid snowmelt caused extensive floooding in the Colorado River basin, the Snake River basin, and also in the Great Basin. Selected data on stages, discharges, recurrence intervals, and gaging station locations are given in the accompanying table and map on pages 4, 5. Peak discharges on many streams exceeded the 100-year flood and, in many instances, were greater than the floods of June 1983. For example, the Colorado River near Colorado-Utah State Line (drainage area, 17,843 square miles) had a peak discharge of 68,000 cfs on May 27, 1984, which was 5,900 cfs greater than the previous high set on June 27, 1983, and the highest since records began in 1951.

Monthly mean flows remained in the above-normal range in parts of most States in the Southeast, Northeast, North-central, and Southwestern parts of the Nation and were highest of record for May in parts of Colorado, Connecticut, Idaho, Iowa, Nebraska, Nevada, New Jersey, North Carolina, Utah, and Wyoming. (See table on page 3.) For example, in northwestern Iowa, the monthly mean flow of 9,330 cfs and the daily mean flow of 18,600 cfs on May 2 at Des Moines River at Fort Dodge (drainage area, 4,190 square miles) were highest for May in 52 years of record, and flows at that site remained in the above-normal range for the 7th consecutive month.

By contrast, streamflows remained in the below-normal range in parts of Hawaii, Michigan, Montana, Puerto Rico, Texas, and Washington, and decreased into that range in parts of Nova Scotia, Ontario, Alberta, British Columbia, California, Louisiana, and Oklahoma. Monthly or daily mean flows were lowest of record for May in parts of Alberta, Montana, Puerto Rico, and Texas. Severe drought conditions affected most of Puerto Rico where the 6-month drought has resulted in water rationing in San Juan and 35 other towns. The water available in reservoirs suppling metropolitan San Juan was less than the normal demand for 100 days.

Elsewhere in the Nation, runoff from 4 to 8 inches of rain during the period May 5–7 caused most streams in central and southern Kentucky to reach flood stage with flood flows at 2 sites exceeding the 100-year flood. In Indiana, high carryover flows from April held monthly mean flows above median throughout the State. In Stokes County in northwestern North Carolina, runoff from 4 to 6 inches of rain at month's end caused lowland flooding in small streams and extensive agricultural damage, property loss, and one loss of life. In central and eastern Kansas during May, nearly all streams had major rises with bankfull stages common. Contents in irrigation reservoirs in western Kansas remained well below conservation pool levels. In Oklahoma, rapid runoff from 12 inches of rain that fell in Tulsa on May 26–27 caused severe flooding along Mingo and Joe Creeks resulting in damages estimated at $150 million and 13 lives lost. In western Nebraska, snowmelt runoff produced the third highest flow for May in 53 years of record at the North Platte River at Lisco. In Virginia, extensive flooding occurred in Dickenson and Buchanan Counties on May 7 where the peak discharge of 36,800 cfs occurred at Russell Fork at Haysi (drainage area, 286 square miles). In Tennessee, floods resulting from storms during the period May 5–8 had recurrence intervals that ranged up to 15 years. Three deaths were reported as a result of the floods. Douglas Dam on the French Broad River in eastern Tennessee exceeded the record release for the dam, which was built in 1943. This same storm system dropped heavy rains on parts of West Virginia where a peak discharge of 70,000 cfs occurred at Tug Fork at Kermit on May 8, 1984. That flow rate was equal to a 25-year frequency flood. At month's end, runoff from heavy rains in the New England States produced flood flows on many streams that were the highest since 1955.

In northern Utah, the level of Great Salt Lake continued to rise to an elevation of 4,208.80 feet above sea level, only 2.80 feet below the maximum recorded elevation of 4,211.60 feet in 1873.

The Nation's above-normal trend in streamflow was also reflected in the combined flow of three of its largest

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**CONTENTS**

Provisional data; subject to revision

## *NEW EXTREMES DURING MAY 1984 AT STREAMFLOW INDEX STATIONS*

| Station number | Stream and place of determination | Drainage area (square miles) | Years of record | Previous May extremes (period of record) | | May 1984 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Monthly mean in cfs (year) | Daily mean in cfs (year) | Monthly mean in cfs | Percent of median | Daily mean in cfs | Day |
| **HIGH FLOWS** | | | | | | | | | |
| 01057000 | Little Androscoggin River near South Paris, Maine. | 76.2 | 63 | 485 (1937) | 1,870 (1916) | 344 | 150 | 1,920 | 15 |
| 01188000 | Burlington Brook near Burlington, Connecticut. | 4.13 | 53 | 19.7 (1945) | 145 (1968) | 27.3 | 289 | 250 | 30 |
| 01204000 | Pomperaug River at Southbury, Connecticut. | 75.0 | 52 | 267 (1945) | 1,100 (1937) | 383 | 262 | 3,000 | 30 |
| 01309500 | Massapaqua Creek at Massapequa, New York. | 38.0 | 47 | 32.5 (1979) | 56 (1978) | 22.4 | 196 | 89 | 31 |
| 01357500 | Mohawk River at Cohoes, New York. | 3,456 | 66 | 15,080 (1972) | 46,200 (1983) | 12,300 | 184 | 50,000 | 30 |
| 01396500 | South Branch Raritan River near High Bridge, New Jersey. | 65.3 | 66 | 251 (1947) | 1,620 (1981) | 329 | 255 | 1,340 | 31 |
| 02118000 | South Yadkin River near Mocksville, North Carolina. | 306 | 46 | 778 (1972) | 3,030 (1972) | 840 | 251 | 3,330 | 30 |
| 03308500 | Green River at Munfordville, Kentucky. | 1,673 | 58 | 16,920 (1983) | 29,000 (1983) | 13,720 | 753 | 61,700 | 8 |
| 03434500 | Harpeth River near Kingston Springs, Tennessee. | 681 | 60 | 4,770 (1983) | 25,500 (1979) | 4,206 | 561 | 30,600 | 8 |
| 03488000 | North Fork Holston River near Saltville, Virginia. | 222 | 65 | 839 (1958) | 4,960 (1971) | 726 | 211 | 5,840 | 7 |
| 05480500 | Des Moines River at Fort Dodge, Iowa. | 4,190 | 52 | 7,932 (1983) | 16,100 (1951) | 9,330 | 524 | 18,600 | 2 |
| 06485500 | Big Sioux River at Akron, Iowa . . . | 9,030 | 56 | 5,020 (1983) | 9,350 (1983) | 6,930 | 808 | 11,100 | 4 |
| 06630000 | North Platte River above Seminoe Reservoir near Sinclair, Wyoming. | 8,134 | 45 | 6,003 (1952) | 9,590 (1962) | 8,994 | 322 | 14,900 | 26 |
| 06800500 | Elkhorn River at Waterloo, Nebraska. | 6,900 | 64 | 5,195 (1960) | 15,000 (1974) | 7,451 | 484 | 13,400 | 8 |
| 09180500 | Colorado River near Cisco, Utah . . | 24,100 | 73 | 38,310 (1941) | 63,400 (1941) | 41,712 | 315 | 67,700 | 27 |
| 09239500 | Yampa River at Steamboat Springs, Colorado. | 604 | 77 | 3,109 (1928) | 4,920 (1928) | 3,210 | 206 | 5,500 | 25 |
| 10128500 | Weber River near Oakley, Utah . . . | 163 | 80 | 1,279 (1914) | 2,210 (1914) | 1,225 | 190 | 2,320 | 22 |
| 10234500 | Beaver River near Beaver, Utah . . . | 91.0 | 70 | 384 (1937) | 1,000 (1983) | 516 | 491 | 800 | 24 |
| 10322500 | Humboldt River at Palisade, Nevada. | 5,010 | 77 | 3,636 (1952) | 5,930 (1952) | 5,750 | 716 | 7,820 | 18 |
| 13269000 | Snake River at Weiser, Idaho . . . . | 69,200 | 74 | 58,780 (1917) | 83,100 (1921) | 61,200 | 235 | 76,700 | 27 |
| **LOW FLOWS** | | | | | | | | | |
| 05BB001 | Bow River at Banff, Alberta . . . . . | 858 | 74 | 718 (1955) | 242 (1970) | 540 | 35 | 286 | 5 |
| 06099500 | Marias River near Shelby, Montana. | 3,242 | 76 | 711 (1977) | 465 (1941) | 1,080 | 36 | 391 | 9 |
| 08095000 | North Bosque River near Clifton, Texas. | 972 | 61 | 14.8 (1974) | 0.50 (1955) | 2.0 | 1 | 1.2 | (*) |
| 50038100 | Rio Grande de Manti at Highway 2 near Manati, Puerto Rico. | 197 | 13 | 104 (1977) | 70 (1977) | 139 | 47 | 34 | 12 |

*Occurred more than once.

rivers—Mississippi, St. Lawrence, and Columbia—which averaged 2,097,100 cfs during May, up 12 percent from last month and 36 percent above average for May. These three river systems drain more than half of the conterminous United States and provide a quick useful check on the status of the Nation's surface water resources.

Provisional data; subject to revision

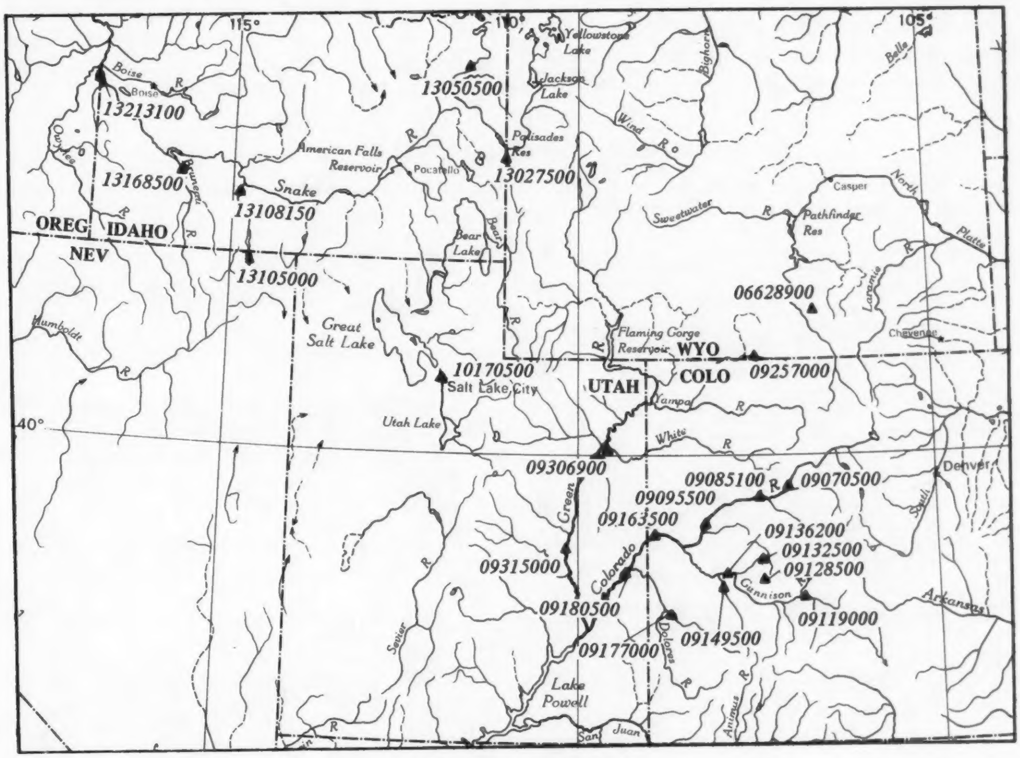
## *FLOOD DATA FOR SELECTED SITES IN COLORADO, IDAHO, NEVADA, OREGON, UTAH, AND WYOMING, MAY 1984*

| WRD station number | Stream and place of determination | Drainage area (square miles) | Period of known floods | Maximum flood previously known | | | Maximum during present flood | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | State (feet) | Discharge (cfs) | Date | Stage (feet) | Discharge | | Recurrence interval (years) |
| | | | | | | | | | Cfs | Cfs per square mile | |
| | **COLORADO** | | | | | | | | | | |
| | COLORADO RIVER MAIN STEM | | | | | | | | | | |
| 09070500 | Colorado River near Dotsero. | 4,394 | 44 | June 8, 1952 | 11.56 | 19,100 | May 25 | 14.03 | 21,700 | 4.9 | 50 |
| 09085100 | Colorado River below Glenwood Springs. | 6,013 | 18 | June 25, 1983 | 11.74 | 27,900 | 26 | 12.45 | 31,200 | 5.2 | >100 |
| 09095500 | Colorado River near Cameo. | 8,050 | 51 | June 26, 1983 | 13.17 | 36,000 | 26 | 14.09 | 37,900 | 4.7 | 100 |
| 09163500 | Colorado River near Colorado-Utah State Line. | 17,843 | 33 | June 27, 1983 | 15.02 | 62,100 | 27 | 16.12 | 68,000 | 3.8 | >100 |
| | GUNNISON RIVER BASIN | | | | | | | | | | |
| 09119000 | Tomichi Creek at Gunnison. | 1,061 | 47 | June 8, 1957 | 4.10 | 1,900 | 26 | 5.52 | 5,400 | 5.1 | >100 |
| 09128500 | Smith Fork near Crawford. | 43.7 | 49 | May 28, 1979 | 6.90 | 1,180 | 18 | 9.23 | 1,200 | 27 | >100 |
| 09132500 | North Fork Gunnison River near Somerset. | 531 | 51 | June 4, 1957 | 5.83 | 7,860 | 24 | 7.70 | 8,020 | 15 | 100 |
| 09136200 | Gunnison River near Lazear. | 5,241 | 22 | May 26, 1983 | 8.27 | 19,700 | 25 | 8.41 | 20,700 | 3.9 | 100 |
| 09149500 | Uncompahgre River at Delta. | 1,129 | 48 | May 5, 1941 | 5.90 | 3,730 | 15 | 8.85 | 5,750 | 5.1 | >100 |
| | DOLORES RIVER BASIN | | | | | | | | | | |
| 09177000 | San Miguel River at Uravan. | 1,499 | 19 | Sept. 6, 1970 | 12.6 | 8,910 | 11 | 10.40 | 9,150 | 6.1 | 50 |
| | **IDAHO** | | | | | | | | | | |
| | HENRYS FORK BASIN | | | | | | | | | | |
| 13050500 | Henrys Fork at St. Anthony. | 1,770 | 23 | June 4, 1975 | 7.77 | 11,500 | May 16 | 8.67 | 13,600 | 7.7 | >100 |
| | SALMON FALLS CREEK BASIN | | | | | | | | | | |
| 13108150 | Salmon Falls Creek near Hagerman. | 2,120 | 14 | Jan. 12, 1979 | 9.60 | 3,390 | 16 | 17.50 | 6,000 | 2.8 | >100 |
| | BRUNEAU RIVER BASIN | | | | | | | | | | |
| 13168500 | Bruneau River near Hot Spring. | 2,630 | 46 | Mar. 1, 1910 | 13.0 | 6,500 | 15 | 13.25 | 7,000 | 2.7 | >100 |
| | **NEVADA** | | | | | | | | | | |
| | SALMON FALLS CREEK BASIN | | | | | | | | | | |
| 13105000 | Salmon Falls Creek near San Jacinto. | 1,450 | 72 | May 18, 1975 | 10.83 | 2,430 | May 16 | 14.26 | 4,700 | 3.2 | >100 |
| | **OREGON** | | | | | | | | | | |
| | SNAKE RIVER MAIN STEM | | | | | | | | | | |
| 13213100 | Snake River at Nyssa. | 58,700 | 9 | May 14, 1983 | 11.88 | 49,800 | May 19 | 13.43 | 56,400 | 1.0 | >100 |
| | **UTAH** | | | | | | | | | | |
| | COLORADO RIVER MAIN STEM | | | | | | | | | | |
| 09180500 | Colorado River near Cisco. | 24,100 | 73 | June 19, 1917 | 19.7 | 76,800 | May 27 | 20.67 | 68,400 | 2.8 | ..... |
| | GREEN RIVER BASIN | | | | | | | | | | |
| 09306900 | White River at mouth near Ouray. | 5,120 | 10 | Mar. 29, 1979 | 7.71 | 4,260 | 27 | 9.94 | 5,480 | 1.1 | ..... |
| 09315000 | Green River at Green River. | 44,850 | 85 | June 27, 1917 | 14.53 | 68,100 | 20 | 16.12 | 44,700 | 1.0 | ..... |
| | JORDAN RIVER BASIN | | | | | | | | | | |
| 10170500 | Surplus Canal at Salt Lake City. | ....... | 41 | June 12, 1983 | ..... | 3,180 | June 1 | 8.63 | 4,120 | .... | ..... |

*FLOOD DATA FOR SELECTED SITES IN COLORADO, IDAHO, NEVADA, OREGON, UTAH, AND WYOMING, MAY 1984*—Continued

| WRD station number | Stream and place of determination | Drainage area (square miles) | Period of known floods | Maximum flood previously known | | | Maximum during present flood | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | State (feet) | Dis-charge (cfs) | Date | Stage (feet) | Discharge | | Recur-rence interval (years) |
| | | | | | | | | | Cfs | Cfs per square mile | |
| | **WYOMING** | | | | | | | | | | |
| | PLATTE RIVER BASIN | | | | | | | | | | |
| 06628900 | Pass Creek near Elk Mountain. | 91.5 | 27 | May 9, 1973 | 6.27 | 1,180 | May 12, 13 | 9.13 | (a) | .... | >100 |
| | GREEN RIVER BASIN | | | | | | | | | | |
| 09257000 | Little Snake River near Dixon. | 988 | 48 | May 26, 1920 | 11.6 | 9,600 | 15, 16 | 13.2 | 12,000 | 12 | >100 |
| | SALT RIVER BASIN | | | | | | | | | | |
| 13027500 | Salt River above reservoir, near Etna. | 829 | 31 | May 30, 1983 | 5.96 | 4,910 | 16 | 5.85 | 4,730 | 5.7 | 100 |

[a]Discharge not determined.




Albers Equal Area Projection

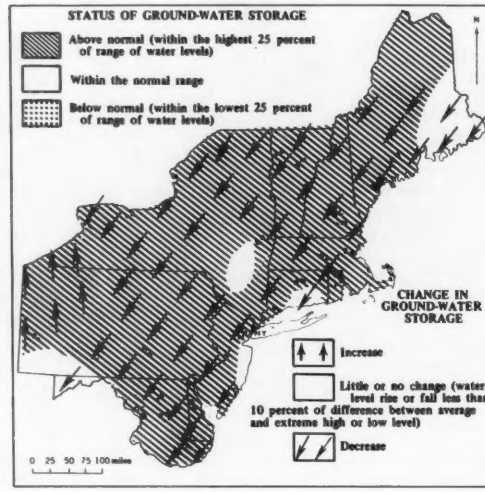
SCALE 1:7,500,000

Location of stream gaging stations in Colorado, Idaho, Nevada, Oregon, Utah, and Wyoming, described in table of peak stages and discharges.

## GROUND-WATER CONDITIONS DURING MAY 1984

Ground-water levels declined seasonally in most of the Northeast. (See map.) However, as a result of carryover of relatively high levels from April and recharge from above-average precipitation in May, levels near the end of May were above average for May in nearly the entire region. Levels in some observation wells were among the highest for end of May in periods of record spanning 20 to 35 years.

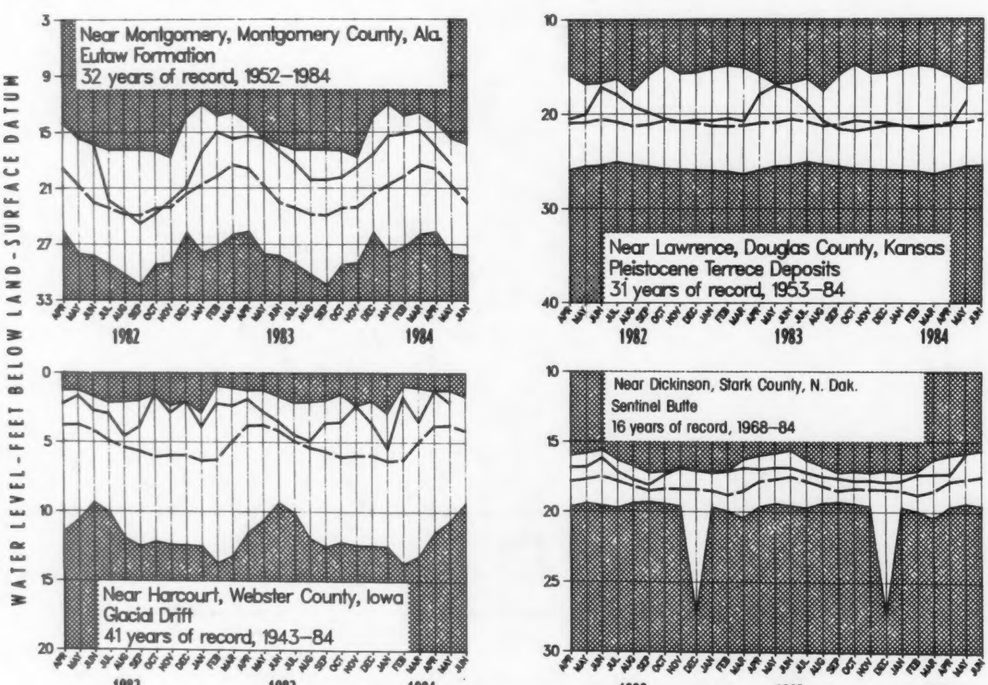
In the southeastern States, ground-water levels rose in Kentucky and in much of North Carolina, but declined in West Virginia, Mississippi, Alabama, and Georgia. Trends were mixed in other reporting States. Water levels were above average in Kentucky, Alabama, and Florida, and in much of North Carolina, and below average in Arkansas and in most of West Virginia. Levels were mixed with respect to average in other reporting southeastern States. A new high ground-water level for May was recorded in Virginia, and a new May low level was noted in Tennessee despite a net rise during the month.




Map shows ground-water storage near end of May and change in ground-water storage from end of April to end of May.

## MONTH-END GROUND-WATER LEVELS IN KEY WELLS

**Unshaded area indicates range between highest and lowest record for the month. Dashed line indicates average of monthly levels in previous years. Heavy line indicates level for current period.**



## WATER LEVELS IN KEY OBSERVATION WELLS IN SOME REPRESENTATIVE AQUIFERS IN THE CONTERMINOUS UNITED STATES—MAY 1984

| Aquifer and location | Water level in feet with reference to land-surface datum | Departure from average in feet | Net change in water level in feet since: Last month | Net change in water level in feet since: Last year | Year records began | Remarks |
|---|---|---|---|---|---|---|
| Glacial drift at Hanska, south-central Minnesota | -4.08 | +1.49 | -0.68 | -1.32 | 1943 | |
| Glacial drift at Roscommon in north-central part of Lower Peninsula, Michigan | -3.79 | +0.16 | -0.25 | -0.81 | 1935 | |
| Glacial drift at Marion, Iowa | -3.41 | +0.28 | -1.56 | -1.19 | 1941 | |
| Glacial drift at Princeton in northwestern Illinois | -7.18 | +0.75 | -0.58 | +0.12 | 1943 | |
| Petersburg Granite, southeastern Piedmont near Fall Zone, Colonial Heights, Virginia | -13.19 | -1.65 | -1.64 | +0.33 | 1939 | |
| Glacial outwash sand and gravel, Louisville, Kentucky (U.S. well no. 2) | -17.09 | +8.26 | +0.48 | +0.61 | 1946 | |
| 500-foot sand aquifer near Memphis, Tennessee (U.S. well no. 2) | -103.27 | -15.13 | +0.18 | -1.95 | 1941 | May low. |
| Granite in eastern Piedmont Province, Chapel Hill, North Carolina | -35.22 | +6.09 | +0.05 | +2.81 | 1931 | Alltime high. |
| Sparta Sand in Pine Bluff industrial area, Arkansas | -226.20 | -20.65 | -1.55 | +3.70 | 1958 | |
| Eutaw Formation in the City of Montgomery, Alabama (U.S. well no. 4) | -17.7 | +2.7 | -1.2 | -2.0 | 1952 | |
| Limestone aquifer on Cockspur Island, Savannah area, Georgia (U.S. well no. 6) | -32.08 | -6.22 | -1.12 | +3.75 | 1956 | |
| Sand and gravel in Puget Trough, Tacoma, Washington | -108.88 | +0.55 | -9.80 | -8.75 | 1952 | |
| Pleistocene glacial outwash gravel, North Pole, northern Idaho (U.S. well no. 3) | -455.1 | +5.6 | +1.0 | +0.4 | 1929 | |
| Snake River Group: southwestern Snake River Plain aquifer, at Eden, Idaho | -125.8 | -5.3 | +0.9 | +2.5 | 1957 | |
| Alluvial valley fill in Flowell area, Millard County, Utah (U.S. well no. 9) | -22.00 | +16.48 | -4.18 | +19.49 | 1929 | |
| Alluvial sand and gravel, Platte River Valley, Nebraska (U.S. well no. 6) | -0.22 | +4.05 | +0.85 | +2.05 | 1935 | Alltime high. |
| Alluvial valley fill in Steptoe Valley, Nevada | -8.83 | +.98 | -0.05 | +0.59 | 1950 | May high. |
| Pleistocene terrace deposits in Kansas River valley, at Lawrence, northeastern Kansas | -18.99 | +1.81 | +0.57 | -2.00 | 1953 | |
| Alluvium and Paso Robles clay, sand, and gravel, Santa Maria Valley, California (U.S. well no. 11) | -97.73 | +46.53 | -1.86 | +24.32 | 1957 | Alltime high. |
| Valley fill, Elfrida area, Douglas, Arizona (U.S. well no. 15) | -110.6 | -31.76 | -1.2 | +0.7 | 1951 | |
| Hueco bolson, El Paso area, Texas | -261.91 | -15.54 | -1.60 | -1.89 | 1965 | May low. |
| Evangeline aquifer, Houston area, Texas | -309.21 | -14.47 | -3.07 | +6.50 | 1965 | |

A new alltime high water level was reached in the observation well in the eastern Piedmont of North Carolina in 53 years of record.

In the central and western Great Lakes States, ground-water levels rose in Wisconsin; levels showed mixed trends in the other States. Water levels were above or near average in Wisconsin, Indiana, and Ohio; levels were above and below average in other States. A new high water level for May was reached in Iowa.

In the western States, ground-water levels rose in most of Idaho, and declined in southern California and Arizona. Mixed trends prevailed in other States. Water levels were above average in Washington, Nebraska, and southern California, and below average in Arizona, Texas, and most of New Mexico. Levels were above and below average in other western States. New high ground-water levels for May occurred in Idaho, Nevada, and Utah. New low levels for May were noted in Nevada, New Mexico, and Texas. New alltime high water levels were recorded for Nebraska and southern California, in 49 and 27 years of record, respectively, and a new alltime low ground-water level was reached in Arizona, in 21 years of record.

## USABLE CONTENTS OF SELECTED RESERVOIRS NEAR END OF MAY 1984

[Contents are expressed in percent of reservoir capacity. The usable storage capacity of each reservoir is shown in the column headed "Normal maximum."]

| Reservoir<br>Principal uses:<br>F–Flood control<br>I–Irrigation<br>M–Municipal<br>P–Power<br>R–Recreation<br>W–Industrial | Percent of normal maximum | | | | Normal maximum (acre-feet)[a] |
|---|---|---|---|---|---|
| | End of May 1984 | End of May 1983 | Average for end of May | End of Apr. 1984 | |
| **NOVA SCOTIA** | | | | | |
| Rossignol, Mulgrave, Falls Lake, St. Margaret's Bay, Black, and Ponhook Reservoirs (P) | 91 | 77 | 77 | 84 | [b]226,300 |
| **QUEBEC** | | | | | |
| Allard (P) | 87 | 91 | 87 | 77 | 280,600 |
| Gouin (P) | 79 | 84 | 64 | 63 | 6,954,000 |
| **MAINE** | | | | | |
| Seven reservoir systems (MP) | 103 | 101 | 90 | 85 | 4,098,000 |
| **NEW HAMPSHIRE** | | | | | |
| First Connecticut Lake (P) | 97 | 93 | 87 | 64 | 76,450 |
| Lake Francis (FPR) | 87 | 97 | 82 | 59 | 99,310 |
| Lake Winnipesaukee (PR) | 126 | 105 | 101 | 96 | 165,700 |
| **VERMONT** | | | | | |
| Harriman (P) | 96 | 94 | 87 | 86 | 116,200 |
| Somerset (P) | 81 | 98 | 86 | 59 | 57,390 |
| **MASSACHUSETTS** | | | | | |
| Cobble Mountain and Borden Brook (MP) | 97 | 92 | 90 | 86 | 77,920 |
| **NEW YORK** | | | | | |
| Great Sacandaga Lake (FPR) | 105 | 101 | 97 | 95 | 786,700 |
| Indian Lake (FMP) | 101 | 100 | 103 | 86 | 103,300 |
| New York City reservoir system (MW) | 100 | 100 | ... | 100 | 1,680,000 |
| **NEW JERSEY** | | | | | |
| Wanaque (M) | 104 | 102 | 95 | 101 | 85,100 |
| **PENNSYLVANIA** | | | | | |
| Allegheny (FPR) | 52 | 44 | 47 | 46 | 1,180,000 |
| Pymatuning (FMR) | 105 | 102 | 99 | 98 | 188,000 |
| Raystown Lake (FR) | 68 | 68 | 60 | 68 | 761,900 |
| Lake Wallenpaupack (PR) | 91 | 79 | 78 | 80 | 157,800 |
| **MARYLAND** | | | | | |
| Baltimore municipal system (M) | 101 | 100 | 94 | 101 | 261,900 |
| **NORTH CAROLINA** | | | | | |
| Bridgewater (Lake James) (P) | 98 | 94 | 92 | 94 | 288,800 |
| Narrows (Badin Lake) (P) | 97 | 92 | 99 | 99 | 128,900 |
| High Rock Lake (P) | 91 | 84 | 83 | 77 | 234,800 |
| **SOUTH CAROLINA** | | | | | |
| Lake Murray (P) | 96 | 96 | 83 | 94 | 1,614,000 |
| Lakes Marion and Moultrie (P) | 89 | 87 | 79 | 91 | 1,862,000 |
| **SOUTH CAROLINA--GEORGIA** | | | | | |
| Clark Hill (FP) | 85 | 85 | 76 | 87 | 1,730,000 |
| **GEORGIA** | | | | | |
| Burton (PR) | 98 | 98 | 94 | 93 | 104,000 |
| Sinclair (MPR) | 97 | 88 | 93 | 97 | 214,000 |
| Lake Sidney Lanier (FMPR) | 67 | 68 | 66 | 67 | 1,686,000 |
| **ALABAMA** | | | | | |
| Lake Martin (P) | 99 | 100 | 95 | 97 | 1,375,000 |
| **TENNESSEE VALLEY** | | | | | |
| Clinch Projects: Norris and Melton Hill Lakes (FPR) | 78 | 80 | 66 | 70 | 2,229,300 |
| Douglas Lake (FPR) | 92 | 90 | 72 | 66 | 1,394,000 |
| Hiwassee Projects: Chatuge, Nottely, Hiwassee, Apalachia, Blue Ridge, Ocoee 3, and Parksville Lakes (FPR) | 95 | 92 | 83 | 83 | 1,012,000 |
| Holston Projects: South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes (FPR) | 71 | 88 | 71 | 69 | 2,880,000 |
| Little Tennessee Projects: Nantahala, Thorpe, Fontana, and Chilhowee Lakes (FPR) | 97 | 97 | 84 | 82 | 1,478,000 |
| **WISCONSIN** | | | | | |
| Chippewa and Flambeau (PR) | 92 | 91 | 86 | 78 | 365,000 |
| Wisconsin River (21 reservoirs) (PR) | 87 | 91 | 82 | 70 | 399,000 |
| **MINNESOTA** | | | | | |
| Mississippi River headwater system (FMR) | 29 | 28 | 37 | 25 | 1,640,000 |
| **NORTH DAKOTA** | | | | | |
| Lake Sakakawea (Garrison) (FIPR) | 87 | 84 | 86 | 84 | 22,700,000 |
| **SOUTH DAKOTA** | | | | | |
| Angostura (I) | 95 | 95 | 90 | 95 | 127,600 |
| Belle Fourche (I) | 96 | 96 | 73 | 82 | 185,200 |
| Lake Francis Case (FIP) | 85 | 74 | 82 | 90 | 4,834,000 |
| Lake Oahe (FIP) | 96 | 97 | ... | 93 | 22,530,000 |
| Lake Sharpe (FIP) | 100 | 101 | 100 | 101 | 1,725,000 |
| Lewis and Clarke Lake (FIP) | 79 | 80 | 85 | 79 | 477,000 |
| **NEBRASKA** | | | | | |
| Lake McConaughy (IP) | 86 | 98 | 80 | 82 | 1,948,000 |
| **OKLAHOMA** | | | | | |
| Eufaula (FPR) | 104 | 109 | 96 | 104 | 2,378,000 |
| Keystone (FPR) | 101 | 71 | 107 | 100 | 661,000 |
| Tenkiller Ferry (FPR) | 109 | 110 | 103 | 109 | 628,200 |
| Lake Altus (FIMR) | 50 | 75 | 67 | 50 | 133,000 |
| Lake O'The Cherokees (FPR) | 102 | 105 | 93 | 105 | 1,492,000 |
| **OKLAHOMA--TEXAS** | | | | | |
| Lake Texoma (FMPRW) | 91 | 103 | 103 | 93 | 2,722,000 |
| **TEXAS** | | | | | |
| Bridgeport (IMW) | 68 | 87 | 53 | 70 | 386,400 |
| Canyon (FMR) | 87 | 93 | 81 | 87 | 385,600 |
| International Amistad (FIMPW) | 63 | 84 | 83 | 71 | 3,497,000 |
| International Falcon (FIMPW) | 32 | 36 | 67 | 33 | 2,668,000 |
| Livingston (IMW) | 101 | 105 | 90 | 99 | 1,788,000 |
| Possum Kingdom (IMPRW) | 79 | 93 | 99 | 80 | 570,200 |
| Red Bluff (PI) | 13 | 14 | 26 | 13 | 307,000 |
| Toledo Bend (P) | 98 | 103 | 92 | 95 | 4,472,000 |
| Twin Buttes (FIM) | 17 | 31 | 32 | 20 | 177,800 |
| Lake Kemp (IMW) | 91 | 87 | 89 | 99 | 268,000 |
| Lake Meredith (FWM) | 39 | 52 | 36 | 40 | 796,900 |
| Lake Travis (FIMPRW) | 63 | 95 | 83 | 70 | 1,144,000 |
| **MONTANA** | | | | | |
| Canyon Ferry (FIMPR) | 88 | 82 | 80 | 78 | 2,043,000 |
| Fort Peck (FPR) | 87 | 86 | 86 | 85 | 18,910,000 |
| Hungry Horse (FIPR) | 74 | 83 | 73 | 64 | 3,451,000 |
| **WASHINGTON** | | | | | |
| Ross (PR) | 48 | 45 | 57 | 40 | 1,052,000 |
| Franklin D. Roosevelt Lake (IP) | 46 | 33 | 74 | 50 | 5,022,000 |
| Lake Chelan (PR) | 47 | 71 | 74 | 38 | 676,100 |
| Lake Cushman (PR) | 96 | 100 | 96 | 85 | 359,500 |
| Lake Merwin (P) | 105 | 100 | 104 | 105 | 245,600 |
| **IDAHO** | | | | | |
| Boise River (4 reservoirs) (FIP) | 83 | 80 | 81 | 77 | 1,235,000 |
| Coeur d'Alene Lake (P) | 124 | 104 | 125 | 102 | 238,500 |
| Pend Oreille Lake (FP) | 74 | 79 | 82 | 59 | 1,561,000 |
| **IDAHO--WYOMING** | | | | | |
| Upper Snake River (8 reservoirs) (MP) | 87 | 86 | 78 | 77 | 4,401,000 |
| **WYOMING** | | | | | |
| Boysen (FIP) | 77 | 73 | 65 | 69 | 802,000 |
| Buffalo Bill (IP) | 79 | 73 | 74 | 68 | 421,300 |
| Keyhole (F) | 41 | 45 | 51 | 34 | 193,800 |
| Pathfinder, Seminoe, Alcova, Kortes, Glendo, and Guernsey Reservoirs (I) | 89 | 81 | 59 | 71 | 3,056,000 |
| **COLORADO** | | | | | |
| John Martin (FIR) | 53 | 25 | 14 | 45 | 364,400 |
| Taylor Park (IR) | 63 | 37 | 70 | 34 | 106,200 |
| Colorado–Big Thompson project (I) | 88 | 66 | 63 | 78 | 722,600 |
| **COLORADO RIVER STORAGE PROJECT** | | | | | |
| Lake Powell; Flaming Gorge, Fontenelle, Navajo, and Blue Mesa Reservoirs (IFPR) | 91 | 94 | ... | 82 | 31,620,000 |
| **UTAH--IDAHO** | | | | | |
| Bear Lake (IPR) | 90 | 90 | 69 | 78 | 1,421,000 |
| **CALIFORNIA** | | | | | |
| Folsom (FIP) | 97 | 76 | 88 | 88 | 1,000,000 |
| Hetch Hetchy (MP) | 100 | 40 | 69 | 79 | 360,400 |
| Isabella (FIR) | 69 | 69 | 46 | 54 | 568,100 |
| Pine Flat (FI) | 93 | 46 | 72 | 79 | 1,001,000 |
| Clair Engle Lake (Lewiston) (P) | 97 | 91 | 91 | 89 | 2,438,000 |
| Lake Almanor (P) | 107 | 89 | 65 | 103 | 1,036,000 |
| Lake Berryessa (FIMW) | 96 | 101 | 87 | 99 | 1,600,000 |
| Millerton Lake (FI) | 96 | 32 | 78 | 93 | 503,200 |
| Shasta Lake (FIPR) | 98 | 102 | 92 | 99 | 4,377,000 |
| **CALIFORNIA--NEVADA** | | | | | |
| Lake Tahoe (IPR) | 84 | 68 | 68 | 71 | 744,600 |
| **NEVADA** | | | | | |
| Rye Patch (I) | 90 | 90 | 69 | 70 | 194,300 |
| **ARIZONA--NEVADA** | | | | | |
| Lake Mead and Lake Mohave (FIMP) | 93 | 94 | 70 | 91 | 27,970,000 |
| **ARIZONA** | | | | | |
| San Carlos (IP) | 75 | 65 | 21 | 79 | 1,073,000 |
| Salt and Verde River system (IMPR) | 82 | 96 | 53 | 84 | 2,019,100 |
| **NEW MEXICO** | | | | | |
| Conchas (FIR) | 64 | 82 | 79 | 64 | 330,100 |
| Elephant Butte and Caballo (FIPR) | 64 | 50 | 32 | 57 | 2,453,000 |

[a]1 acre-foot = 0.0436 million cubic feet = 0.326 million gallons = 0.504 cubic feet per second day.
[b]Thousands of kilowatt-hours (the potential electric power that could be generated by the volume of water in storage).

Provisional data; subject to revision

## *FLOW OF LARGE RIVERS DURING MAY 1984*

| Station number | Stream and place of determination | Drainage area (square miles) | Mean annual discharge through September 1980 (cubic feet per second) | May 1984: Monthly mean discharge (cubic feet per second) | Percent of median monthly discharge, 1951–80 | Change in discharge from previous month (percent) | Discharge near end of month: Cubic feet per second | Discharge near end of month: Million gallons per day | Date |
|---|---|---|---|---|---|---|---|---|---|
| 01014000 | St. John River below Fish River at Fort Kent, Maine | 5,690 | 9,647 | 46,419 | 137 | +69 | 15,500 | 10,020 | 29 |
| 01318500 | Hudson River at Hadley, N.Y | 1,664 | 2,909 | 6,160 | 123 | -34 | 9,000 | 5,800 | 31 |
| 01357500 | Mohawk River at Cohoes, N.Y | 3,456 | 5,734 | 12,300 | 184 | -20 | 40,000 | 26,000 | 31 |
| 01463500 | Delaware River at Trenton, N.J | 6,780 | 11,750 | 26,310 | 208 | -24 | 129,000 | 83,400 | 31 |
| 01570500 | Susquehanna River at Harrisburg, Pa | 24,100 | 34,530 | 54,100 | 128 | -51 | 193,000 | 124,700 | 31 |
| 01646500 | Potomac River near Washington, D.C. | 11,560 | [1]11,490 | 20,400 | 146 | -58 | 13,500 | 8,730 | 31 |
| 02105500 | Cape Fear River at William O. Huske Lock near Tarheel, N.C. | 4,810 | 5,005 | 4,800 | 143 | -72 | 18,000 | 11,600 | 31 |
| 02131000 | Pee Dee River at Peedee, S.C | 8,830 | 9,851 | 14,400 | 189 | -57 | 6,520 | 4,213 | 29 |
| 02226000 | Altamaha River at Doctortown, Ga | 13,600 | 13,880 | 24,850 | 204 | -15 | 8,980 | 5,803 | 29 |
| 02320500 | Suwannee River at Branford, Fla | 7,880 | 6,987 | 16,500 | 250 | -48 | 9,740 | 6,295 | 31 |
| 02358000 | Apalachicola River at Chattahoochee, Fla | 17,200 | 22,570 | 30,400 | 151 | -21 | 35,100 | 22,690 | 31 |
| 02467000 | Tombigbee River at Demopolis lock and dam near Coatopa, Ala | 15,400 | 23,300 | 52,220 | 237 | +2 | 18,600 | 12,020 | 31 |
| 02489500 | Pearl River near Bogalusa, La | 6,630 | 9,768 | 11,960 | 116 | -26 | 4,940 | 3,192 | 31 |
| 03049500 | Allegheny River at Natrona, Pa | 11,410 | [1]19,480 | 41,090 | 193 | +1 | 58,600 | 37,870 | 25 |
| 03085000 | Monongahela River at Braddock, Pa. | 7,337 | [1]12,510 | 13,700 | 97 | -57 | 6,900 | 4,460 | 25 |
| 03193000 | Kanawha River at Kanawha Falls, W. Va | 8,367 | 12,590 | 23,000 | 178 | -18 | 5,810 | 3,755 | 28 |
| 03234500 | Scioto River at Higby, Ohio | 5,131 | 4,547 | 5,765 | 122 | -49 | 6,580 | 4,252 | 31 |
| 03294500 | Ohio River at Louisville, Ky[2] | 91,170 | 116,000 | 222,400 | 169 | -25 | 146,400 | 94,620 | 29 |
| 03377500 | Wabash River at Mount Carmel, Ill | 28,635 | 27,220 | 49,600 | 155 | -44 | 48,000 | 31,000 | 31 |
| 03469000 | French Broad River below Douglas Dam, Tenn | 4,543 | 6,798 | 14,300 | 212 | +23 | ...... | ...... | ... |
| 04084500 | Fox River at Rapide Croche Dam, near Wrightstown, Wis[2] | 6,150 | 4,163 | 4,575 | 80 | +42 | 4,986 | 3,222 | 24 |
| 04264331 | St. Lawrence River at Cornwall, Ontario–near Massena, N.Y[3] | 299,000 | 242,700 | 307,100 | 110 | +9 | 309,000 | 199,700 | 31 |
| 05011500 | St. Maurice River at Grand Mere, Quebec | 16,300 | 25,150 | 64,900 | 94 | +34 | 43,100 | 27,860 | 31 |
| 05082500 | Red River of the North at Grand Forks, N. Dak | 30,100 | 2,551 | 3,790 | 100 | -75 | 2,880 | 1,861 | 25 |
| 05133500 | Rainy River at Manitou Rapids, Minn. | 19,400 | 12,830 | 15,100 | 83 | -5 | 14,200 | 9,180 | 23 |
| 05330000 | Minnesota River near Jordan, Minn. | 16,200 | 3,402 | 17,491 | 318 | -37 | 9,300 | 6,010 | 31 |
| 05331000 | Mississippi River at St. Paul, Minn | 36,800 | [1]10,610 | 37,781 | 170 | -26 | 21,800 | 14,090 | 31 |
| 05365500 | Chippewa River at Chippewa Falls, Wis. | 5,600 | 5,100 | 9,224 | 152 | +29 | 4,100 | 2,650 | 30 |
| 05407000 | Wisconsin River at Muscoda, Wis | 10,300 | 8,617 | 15,114 | 136 | +49 | 8,323 | 5,379 | 31 |
| 05446500 | Rock River near Joslin, Ill. | 9,551 | 5,873 | 9,790 | 144 | +16 | 14,300 | 9,240 | 31 |
| 05474500 | Mississippi River at Keokuk, Iowa | 119,000 | 62,620 | 164,080 | 169 | +21 | 152,000 | 98,200 | 31 |
| 06214500 | Yellowstone River at Billings, Mont | 11,796 | 7,038 | 13,343 | 100 | +223 | 13,900 | 8,980 | 29 |
| 06934500 | Missouri River at Hermann, Mo | 524,200 | 79,490 | 205,700 | 223 | -21 | 175,000 | 113,100 | 31 |
| 07289000 | Mississippi River at Vicksburg, Miss[4] | 1,140,500 | 576,600 | 1,445,000 | 172 | +10 | 1,218,000 | 787,200 | 29 |
| 07331000 | Washita River near Dickson, Okla. | 7,202 | 1,368 | 639 | 38 | -55 | 486 | 314 | 30 |
| 08276500 | Rio Grande below Taos Junction Bridge, near Taos, N. Mex | 9,730 | 725 | 3,385 | 382 | +132 | 4,700 | 3,040 | 31 |
| 09315000 | Green River at Green River, Utah. | 40,600 | 6,298 | 29,271 | 253 | +174 | 44,000 | 28,400 | 29 |
| 11425500 | Sacramento River at Verona, Calif | 21,257 | 18,820 | 11,808 | 67 | -14 | 13,600 | 8,790 | 27 |
| 13269000 | Snake River at Weiser, Idaho | 69,200 | 18,050 | 61,200 | 235 | +11 | 73,400 | 47,440 | 29 |
| 13317000 | Salmon River at White Bird, Idaho | 13,550 | 11,250 | 30,700 | 97 | +160 | 30,500 | 19,710 | 28 |
| 13342500 | Clearwater River at Spalding, Idaho | 9,570 | 15,480 | 44,100 | 88 | +57 | 55,400 | 35,810 | 30 |
| 14105700 | Columbia River at The Dalles, Oreg[5] | 237,000 | 193,100 | 345,000 | 81 | +30 | 325,300 | 210,250 | 29 |
| 14191000 | Willamette River at Salem, Oreg. | 7,280 | 23,510 | 31,100 | 133 | -13 | 25,300 | 16,350 | 29 |
| 15515500 | Tanana River at Nenana, Alaska. | 25,600 | 23,460 | 27,845 | 94 | +223 | 26,900 | 17,390 | 31 |
| 8MF005 | Fraser River at Hope, British Columbia. | 83,800 | 96,290 | 101,340 | 56 | +42 | 131,000 | 84,700 | 30 |

[1] Adjusted.
[2] Records furnished by Corps of Engineers.
[3] Records furnished by Buffalo District, Corps of Engineers, through International St. Lawrence River Board of Control. Discharges shown are considered to be the same as discharge at Ogdensburg, N.Y. when adjusted for storage in Lake St. Lawrence.
[4] Records of daily discharge computed jointly by Corps of Engineers and Geological Survey.
[5] Discharge determined from information furnished by Bureau of Reclamation, Corps of Engineers, and Geological Survey.

## *DISSOLVED SOLIDS AND WATER TEMPERATURES FOR MAY 19*

| Station number | Station name | May data of following calendar years | Stream discharge during month Mean (cfs) | Dissolved-solids con during mont Minimum (mg/L) | Ma ( |
|---|---|---|---|---|---|
| | *NORTHEAST* | | | | |
| 01463500 | Delaware River at | 1984 | 26,300 | 60 | |
| | Trenton, N.J. | 1945–83 | 15,290 | 50 | |
| | (Morrisville, Pa.) | (Extreme yr) | | (1946) | ( |
| | | | [c]12,650 | | |
| 04264331 | St. Lawrence River at | 1984 | 307,000 | 166 | |
| | Cornwall, Ontario, near | 1976–83 | 291,000 | 165 | |
| | Massena, N.Y. | (Extreme yr) | | (1977,1979- | (19 |
| | median streamflow at | | | 1980,1983) | |
| | Ogdensburg, N.Y. | | [c]278,300 | | |
| | *SOUTHEAST* | | | | |
| 07289000 | Mississippi River at | 1984 | 1,445,000 | 199 | |
| | Vicksburg, Miss. | 1976–83 | 847,100 | 178 | |
| | | (Extreme yr) | | (1977) | ( |
| | | | [c]838,200 | | |
| | *WESTERN GREAT LAKES REGION* | | | | |
| 03612500 | Ohio River at lock and dam | 1984 | 818,000 | 134 | |
| | 53, near Grand Chain, Ill. | 1955–83 | 356,000 | 124 | |
| | (25 miles west of Paducah, | (Extreme yr) | | (1983) | ( |
| | Ky.; streamflow station | | [c]296,000 | | |
| | at Metropolis, Ill.) | | | | |
| | *MIDCONTINENT* | | | | |
| 06934500 | Missouri River at Hermann, | 1984 | 206,000 | 292 | |
| | Mo. (60 miles west of St. | 1976–83 | 114,900 | 211 | |
| | Louis, Mo.) | (Extreme yr) | | (1978) | ( |
| | | | [c]92,040 | | |
| | *WEST* | | | | |
| 14128910 | Columbia River at | 1984 | 307,000 | 94 | |
| | Warrendale, Oreg. | 1976–83 | 261,800 | 67 | |
| | (streamflow station | (Extreme yr) | | (1976) | |
| | at The Dalles, Oreg.) | | [c]427,700 | | |

[a]Dissolved-solids concentrations, when not analyzed directly, are calculated on basis of measuren

[b]To convert °C to °F: [(1.8 X °C) + 32] = °F.

[c]Median of monthly values for 30-year reference period, water years 1951–80, for comparison w

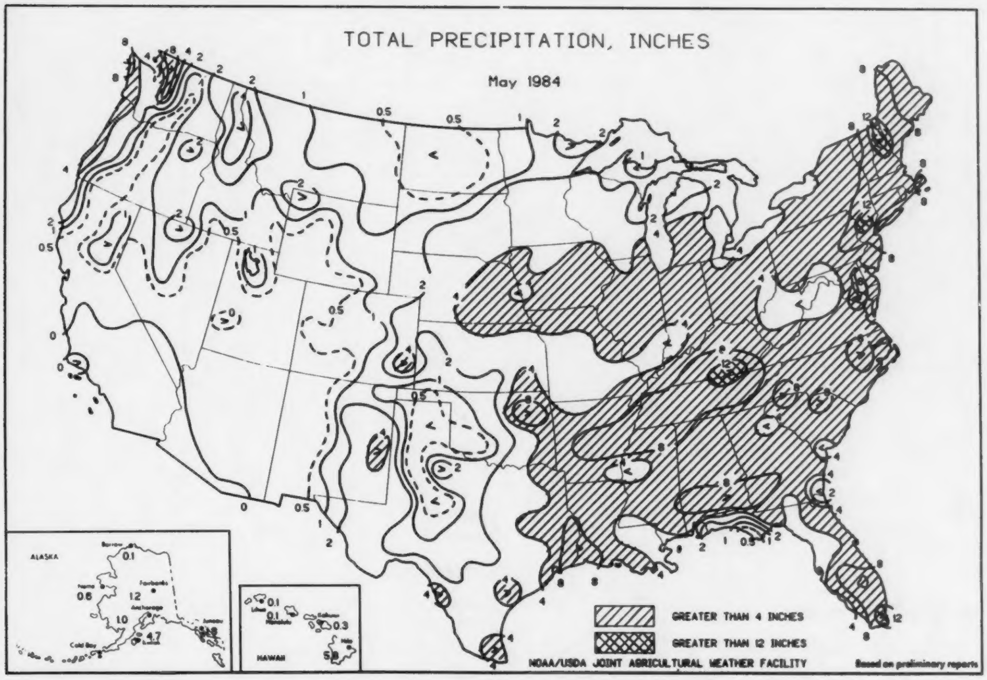
*Water-temperature records not available for April.

## 1984 AT DOWNSTREAM SITES ON SIX LARGE RIVERS

| s concentration month[a] | Dissolved-solids discharge during month[a] | | | Water temperature during month[b] | | |
|---|---|---|---|---|---|---|
| Maximum (mg/L) | Mean (tons per day) | Minimum (tons per day) | Maximum (tons per day) | Mean in°C | Minimum, in°C | Maximum, in°C |
| 93 | 50,520 | 3,000 | 21,790 | 15.0 | 12.0 | 20.0 |
| 123 | ..... | 930 | 12,500 | ... | 10.0 | 28.5 |
| (1978) | | (1965) | (1968) | | | |
| 167 | 138,000 | 134,000 | 139,000 | 8.5 | 7.0 | 10.5 |
| 167 | 130,600 | 109,000 | 153,000 | 9.0 | 4.0 | 13.0 |
| (1980–83) | | (1981) | (1976) | | | |
| 233 | 817,000 | 750,000 | 861,000 | 19.0 | 16.0 | 22.5 |
| 290 | 478,000 | 176,000 | 954,000 | 19.5 | 14.5 | 26.0 |
| (1982) | | (1977) | (1983) | | | |
| 173 | ..... | 206,000 | 466,000 | ... | 16.0 | 20.0 |
| 287 | ..... | 25,500 | 335,000 | ... | 6.5 | 25.0 |
| (1979) | | (1976) | (1983) | | | |
| 385 | 191,000 | 161,000 | 221,000 | 17.5 | 13.0 | 22.0 |
| 520 | 103,000 | 44,500 | 272,000 | 18.5 | 13.0 | 24.5 |
| (1981) | | (1977) | (1983) | | | |
| 102 | 80,900 | 60,600 | 98,000 | 10.5 | 9.5 | 12.5 |
| 144 | 67,800 | 37,500 | 102,000 | 12.5 | 10.5 | 16.5 |
| (1977) | | (1977) | (1983) | | | |

urements of specific conductance.

on with data for current month.




(From Weekly Weather and Crop Bulletin published by National Weather Service and Department of Agriculture.)

## NATIONAL WATER CONDITIONS

May 1984

Based on reports from the Canadian and U.S. Field offices; completed June 8, 1984

| | |
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## EXPLANATION OF DATA

*Cover map* shows generalized pattern of streamflow for the month based on 18 index stream-gaging stations in Canada and 164 index stations in the United States. Alaska and Hawaii inset maps show streamflow only at the index gaging stations that are located near the points shown by the arrows.

Streamflow for the current month is compared with flow for the same month in the 30-year reference period, 1951–80. Streamflow is considered to be *below the normal range* if it is within the range of the low flows that have occurred 25 percent of the time (below the lower quartile) during the reference period. Flow is considered to be *above the normal range* if it is within the range of the high flows that have occurred 25 percent of the time (above the upper quartile). Shorter reference periods are used for the Puerto Rico index stations because of the limited records available.

Flow higher than the lower quartile but lower than the upper quartile is described as being *within the normal range*. In the National Water Conditions, the median is obtained by ranking the 30 flows for each month of the reference period in their order of magnitude; the highest flow is number 1, the lowest flow is number 30, and the average of the 15th and 16th highest flows is the median. One-half of the time you would expect the flows for the month to be below the median and one-half of the time to be above the median.

Statements about *ground-water levels* refer to conditions near the end of the month. The water level in each key observation well is compared with average level for the end of the month determined from the entire past record for that well or from a 30-year reference period, 1951–80. *Changes in ground-water levels*, unless described otherwise, are from the end of the previous month to the end of the current month.

Dissolved solids and temperature data for May are given for six stream-sampling sites that are part of the National Stream Quality Accounting Network (NASQAN). Dissolved solids are minerals dissolved in water and usually consist predominantly of silica and ions of calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, and nitrate. Dissolved-solids discharge represents the total daily amount of dissolved minerals carried by the stream. Dissolved-solids *concentrations* are generally higher during periods of low streamflow, but the highest dissolved-solids *discharges* occur during periods of high streamflow because the total quantities of water, and therefore total load of dissolved minerals, are so much greater than at time of low flow.

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DEPARTMENT OF THE INTERIOR
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